— HEARING PANEL REPORT —

ADDRESSING THE CLASS 2, 3, 4a AND 4b PRICING FORMULAS
BASED UPON A PUBLIC HEARING HELD ON NOVEMBER 29, 2001

Issued:
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This Report of the Hearing Panel regarding proposed amendments to the Stabilization and Marketing Plans for Northern California and Southern California (Plans) is based on evidence received into the Department of Food and Agriculture's hearing folder. The folder includes the Departmental exhibits, written statements and comments received from interested parties, written and oral testimony received at a public hearing held November 29, 2001 and written post–hearing briefs.

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EXECUTIVE SUMMARY

In response to two petitions from cooperative organizations that operate manufacturing plants, the Department called a public hearing on November 29, 2001 to consider adjustments to the Class 2, 3, 4a and 4b pricing formulas. Although opportunity was made available to submit alternative hearing proposals, only the two petitioners filed formal proposals to adjust the class 4a and 4b pricing formulas prior to the hearing. The petitioners proposed to increase the manufacturing cost allowances to offset increased energy costs in butter/NFDM and cheese processing costs.

California milk production had increased by 2.5% for the twelve-month period ending September 2001. For the first ten months of 2001, California cow numbers increased by about 4500 per month. Monthly average milk production costs during the first eight months of 2001 had increased by 38 cents per hundredweight over the 2000 monthly average. However, the slightly higher production costs in 2001 were more than offset by appreciably higher producer prices. For the first 10 months of 2001, producer quota and overbase prices were the second highest since 1990.

The Department's audited processing cost data reflected increased energy costs for October 2000, and March, August & September 2001. Contrary to the opinions expressed by some witnesses, the factual information in the hearing record supports the conclusion that the energy costs increases will continue. During 2001, on-farm energy costs were relatively flat for the first half of the year; they began to rise slightly there after. As of August 2001, they continue to represent less than 2% of the total production cost. In contrast, energy's share of total manufacturing costs for butter NFDM and Cheddar cheese were 10%, 29% and 9% in August 2001.

Some producer witnesses expressed concern over the adjusted manufacturing cost data and requested the Department not to consider this data in its determinations. However, it has been the long-standing policy and practice of the Department to collect hours of labor, kilowatts of power, and therms on natural gas when compiling the manufacturing cost studies. The Department periodically adjusts or updates these completed manufacturing cost studies to reflect changes in rates of such inputs. Throughout the history of the program, there has been extensive testimony regarding the accuracy and reliability of the Department's manufacturing cost data. This data was sought by federal policy makers in the formulation of federal milk price reform and has been widely used by various industry interests, both within California and outside the state, as being the best information available.

While a number of arguments relating to issues that had been considered at previous hearings were raised as objections to increases in the manufacturing cost allowances, the issues raised had been carefully reviewed in prior public hearings. The information and data presented at the November 29 hearing did not materially impact the basic principles established in the prior hearing decisions.

Having carefully considered all the information and evidence in the hearing record, the panel recommends that manufacturing cost allowances in the Class 4a and 4b price formulas generally

be increased by the difference in electricity and natural gas costs between August/September 2001 and the 1998/99 base period.

The information and evidence in the hearing record reflects that Class 2 and 3 plants also experienced higher energy costs. Therefore, the panel recommends that the changes in the Class 4a and 4b pricing formulas be reflected in the Class 2 and 3 prices.

Had the panel recommendations been in effect over the last ten years, the announced Class 2, 3 and 4a prices would have been twenty cents per hundredweight lower. The announced Class 4b prices would have been seven cents per hundredweight lower.

The impact on individual producers will vary depending on the manner in which they market their milk, on how much of their milk production is covered by the quota price, and on whether or not they have ownership in a cooperative organization that owns and operates manufacturing facilities.

Attachment A summarizes the Panel Recommendations with Arguments and Alternatives.

INTRODUCTION

The California Department of Food and Agriculture (Department) held a public hearing on Thursday, November 29, 2001 in Sacramento. The purpose of the hearing was to consider amendments to the Class 2, 3, 4a and 4b pricing formulas as provided in the Milk Stabilization and Marketing Plans for Market Milk (Plans). The Department called the hearing after receiving separate petitions submitted by California Dairies, Inc. (CDI) and Land O'Lakes (LOL). CDI and LOL both proposed, respectively, increases in the Class 4a and 4b manufacturing cost allowances to deal with increased energy costs. The hearing was formally open to any change in the Class 2, 3, 4a and 4b pricing formulas. However, because the petitions proposed changes to pricing levels, consideration primarily focused upon pricing levels, specifically the Class 2 and 3 differentials, and the Class 4a and 4b manufacturing cost allowances (HE#1). No alternative proposals were received before the deadline for submission.

California Food and Agricultural Code Section 61801, *et sec*., provides the authority, procedures and standards for establishing minimum farm prices by the Department for the various classes of milk that handlers must pay for milk purchased from producers. These statutes provide for the formulation, adoption and amendment of the Plans.

Summary of Petition Proposals:

CDI – Decrease the Class 4a price by increasing the Class 4a manufacturing cost allowances for butter and nonfat dry milk to deal with increased energy costs.

LOL – Decrease the Class 4b price by increasing the Class 4b manufacturing cost allowance for Cheddar cheese and whey butter to deal with increased energy costs.

Hearing Witnesses - Fourteen witnesses testified including the Department's witness (* indicated the witness filed a post-hearing brief):

1. Candace Gates, CDFA
2. Richard Cotta and Joe Heffington, California Dairies*
3. James Gruebele, Land O' Lakes*
4. Kevin McLaughlin, Security Milk Producers
5. John Jeter, Hilmar Cheese Co.
6. Jim Tillison, Alliance of Western Milk Producers*
7. Michael Marsh, Western United Dairymen
8. Richard Ghilarducci, Humboldt Creamery Association*
9. Xavier Avila, California Farmers Union*
10. William Schiek, Dairy Institute of California*
11. Geoffrey Vanden Heuvel, Milk Producer Council
12. Sharon Hale, Crystal Cream and Butter Co.
13. Sue Taylor, Leprino Foods

In addition, written submissions were received from two persons who did not give oral testimony:

14. Scott Hofferber and Nick Sibilio, Farmdale Creamery, Inc.

Attachment B summarizes the testimony, written statements and post–hearing briefs submitted during the hearing process.

BACKGROUND

The Department considered the following information when examining and evaluating the proposals and testimony submitted at the hearing.

January 12, 2001 Hearing:

- Producers requested a price increase to offset anticipated energy cost increases
  - $0.25 per hundredweight increase in the Class 1, 2 and 3 prices
  - Additional potential increases in the Class 1, 2, 3, 4a and 4b prices
- Their request was denied because
  - It was based on *anticipated* cost increases that had not been realized
  - Producer cost of production was actually declining
  - Energy is a small component of producer costs (2 percent)

May 31, 2001 Hearing:

- Processors requested a price decrease to offset their energy cost increases
  - $0.25 per hundredweight decrease in the Class 4a price
  - $0.18 per hundredweight decrease in the Class 4b price
- Their request was denied because
  - Electricity costs increases were only anticipated and had yet to occur
  - Natural gas prices were already declining at the time of the hearing
  - There has been remarkable success by both the business community and consumers overall in energy conservation
  - New electricity generating plants were scheduled to come on line that summer to help meet demand for energy.

California Milk Production - California continues to produce more milk from more cows:

- Annual milk production has increased every year since 1978.
- Milk production has increased at an average rate of 4% for the last ten years; nationwide, the figure is slightly less than 1%.
- In 1999, milk production increased at double–digit levels because of high milk prices and low feed prices during 1998 and 1999.
- In 2000, annual milk production reached 32.2 billion pounds.
- Milk production was up 2.5% for the twelve-month period ending September 2001
- Cow numbers have **increased** by an annual average rate of 2.6% for the last ten years; nationwide, cow numbers have **decreased** at a rate of 1.4%.
- In 2000, cow numbers increased by an average of 5,000 per month.
- For the first ten months of 2001, cow numbers increased by an average of 4,500 per month.

Minimum Price Levels (Table 1):

- Producer prices were very high in 1998 and 1999.
- Producer prices were low in 2000. These low prices reflected a national surplus production of milk.
- For the first ten months of 2001, producer prices were again approaching the high levels of 1998 and 1999. However, commodity markets were showing decreasing strength when the hearing record closed.

Table 1. **CALIFORNIA CLASS AND POOL PRICES**
Dollars per Hundredweight, Annual Averages, 1990 to 2000

Year	Class 4a	Class 4b	Quota	Overbase
1990	$10.51	$11.31	$13.03	$11.00
1991	$10.14	$10.30	$12.03	$10.23
1992	$10.44	$10.93	$12.26	$10.87
1993	$10.47	$10.94	$12.07	$10.72
1994	$10.08	$10.99	$12.48	$10.78
1995	$10.53	$11.20	$12.66	$10.96
1996	$12.75	$12.80	$14.57	$12.87
1997	$12.30	$11.27	$13.54	$11.84
1998	$14.59	$13.89	$15.84	$14.14
1999	$12.14	$12.36	$14.40	$12.70
2000	$11.82	$ 9.69	$12.46	$10.76
2001[1/]	$13.91	$12.98	$15.11	$13.42

[1/] 10 months through October

Cost of Production

The Department collects cost of production information on a monthly basis from dairy farmers throughout the state. Based on the information collected, the weighted-average cost per hundred pounds of bulk milk produced is determined. The total cost of production data can be broken down into its various components. The total cost and one of its components, energy costs, are displayed in the Table 2.

The statewide monthly production cost per hundredweight averaged approximately $11.56 for the year 2000. During the first eight months of 2001, the average monthly cost had increased by 38 cents to $11.96 per hundredweight.

During the year 2000, the energy cost component of the total milk production cost averaged 18¢ per hundredweight. During the first eight months of 2001, the energy costs averaged 20¢ per hundredweight. Increased energy costs were first reflected in production costs beginning in June 2001 when the PUC mandated increases took effect.

Table 2. **CALIFORNIA COSTS AND PRICES**
Pool Blend Prices and Production Cost Comparison with Estimated Energy Cost
Dollars per Hundredweight, Monthly, January 2000 to August 2001

	Pool	Production Costs	
Month-Year	**Blend**	**Total**	**Energy**
January 2000	**10.89**	**11.35**	**0.16**
February	10.72	11.97	0.18
March	10.81	11.43	0.16
April	11.02	11.56	0.16
May	11.17	11.31	0.16
June	11.62	11.83	0.19
July	11.84	11.39	0.19
August	11.92	12.14	0.21
September	12.31	11.95	0.21
October	11.41	12.17	0.20
November	12.03	12.12	0.20
December	12.32	12.14	0.18
January 2001	**12.04**	**11.96**	**0.19**
February	12.29	12.54	0.20
March	13.03	11.93	0.19
April	13.76	11.88	0.18
May	14.64	11.83	0.18
June	15.34	12.19	0.22
July	15.25	12.40	0.24
August	16.06	12.59	0.24
2000 Annual Average	**11.50**	**11.56**	**0.18**
2001 Average to August	**14.05**	**11.96**	**0.20**

During 2000, energy expenses made up a relatively small proportion of total production cost, 1.6%. During the first eight months of 2001, energy expenses made up about 1.7% of total production cost; even in the peak month of August 2001; they only made up 1.9% of total cost. The month-to-month changes in total production costs relative to the month-to-month change in energy costs are not highly correlated with each other. For example, between January 2000 and February 2000, total production cost increased by 62 cents while energy costs increased 2 cents. Then in the following month, the total production cost decreased by 54 cents while the energy cost decreased by 2 cents. When energy costs remained at 16 cents during the months March-April-May, total production costs increased by 13 cents for April then decreased by 25 cents for May.

Energy costs varied from 16 to 20 cents per hundredweight between the period January 2000 and May 2001. Beginning in May 2001 energy costs began to rise above the 20 cent level and rose to the 24 cents per hundredweight for the months of July and August 2001. This data is

reflective of the fact that the production of milk is more dependent upon electricity than natural gas.

Compared to costs, farm revenue was more favorable in the first eight months of 2001 than all of 2000. For all of 2000, the average monthly cost of production was $11.56 versus a $11.50 blend price, a 6¢ per hundredweight shortfall. For the first eight months of 2001, the average monthly cost of production was $11.96 versus a $14.05 pool blend price, a $2.09 per hundredweight positive return. (The Pool Blend Price is the average of all the revenues paid to dairy farmers divided by all the milk marketed at actual test.) On a monthly basis, the difference is even more clearly demonstrated (Table 2). The Pool Blend Price exceeded the statewide averaged cost of production three times in the year 2000, while the Pool Blend Price exceeded the statewide average cost of production every month but one during the first eight months of 2001.

California Manufacturing Costs

The California manufacturing cost summaries are weighted average costs of the 19 individual cost studies performed by the Department. Individual studies reflect costs for a plant over a twelve-month period. Generally, when the Department develops a cost summary outside the hearing process, the summary represents actual costs for the various twelve-month periods from each study; such a summary is called an unadjusted cost summary. However for a hearing exhibit, the Department updates certain costs (electricity, natural gas, labor, and/or packaging material) to a more current time period for all the plant cost studies; the resulting summary is called an adjusted cost summary.

For example in Exhibits HE#19 & HE#47, costs for all items except energy are for various twelve-month periods between January 1998 and December 2000. However except for the unadjusted base costs, the four adjusted cost summaries have been updated for changes in electricity and natural gas costs for, respectively, the months of October 2000, and March, August & September 2001.

The most recent exhibit of Departmental plant cost studies (HE#19 & HE#47) show changes in processing costs since the electricity and natural gas prices began to increase in 2000 (Table 3). Table 3 shows changes in energy costs. It must be put in context of relative utilization and energy's share of total cost.

Based on year 2000 figures, Class 4a fat utilization (primarily butter) accounted for 33 percent of all milk fat utilization. Class 4a solids-not-fat (SNF) utilization (primarily NFDM) accounted for 30 percent of all milk SNF utilization. Class 4b fat+SNF utilization (primarily cheese) accounted for 39 percent of all milk fat+SNF utilization.

Energy's share of total manufacturing costs for butter NFDM and Cheddar cheese were, respectively, 5%, 15% and 7% in the 1998-99 base period; these have risen to 10%, 29% and 9% in August 2001. In contrast, on-farm energy costs have risen from 1.6% of total costs for all of the year 2000, to 1.9% in August 2001.

Table 3. **ENERGY RELATED PLANT PROCESSING COST CHANGES**

Changes are from the 1998–1999 base period separately to each of the four months of October 2000, March 2001, August 2001 and September 2001
All costs are cents per pound

	Butter Plants	Nonfat Dry Milk Plants	Cheese Plants
Electricity Costs			
Unadjusted 1998-99 Base	0.32¢	0.83¢	0.65¢
Cost Changes from Unadjusted Base			
Adjusted-Oct. 2000 less 1998-99 Base	0.01¢	-0.01¢	-0.06¢
Adjusted-Mar. 2001 less 1998-99 Base	0.00¢	0.01¢	-0.14¢
Adjusted-Aug. 2001 less 1998-99 Base	0.27¢	0.83¢	0.27¢
Adjusted-Sep. 2001 less 1998-99 Base	0.22¢	0.66¢	0.29¢
Natural Gas Costs			
Unadjusted 1998-99 Base	0.17¢	1.13¢	0.38¢
Cost Changes from Unadjusted Base			
Adjusted-Oct. 2000 less 1998-99 Base	0.17¢	1.27¢	0.38¢
Adjusted-Mar. 2001 less 1998-99 Base	0.38¢	2.69¢	0.80¢
Adjusted-Aug. 2001 less 1998-99 Base	0.24¢	1.83¢	0.41¢
Adjusted-Sep. 2001 less 1998-99 Base	0.20¢	1.50¢	0.39¢

Market Share of Class 2 and 3 Products

California share of the national market for many Class 2 and 3 products has been declining (Figures 1 and 2). California, the nation's number one dairy state, is no longer self sufficient in some of these products. In some cases, California's lost production has apparently relocated to other Western States (Figure 3).

Caveat

We provide in this report analyses that were used to develop the panel's recommendation. As with any analysis using historical data, we issue a caveat that the past is not necessarily a good predictor of the future.

Figure 1 here – Class 2

Figure 2 here – Class 3

Figure 3 here – cottage cheese

MANUFACTURING COST ALLOWANCES

Background

The manufacturing cost summaries give a series of five snapshots of energy costs for California processors of manufactured dairy products: 1998-99 base, October 2000, March 2001, August 2001 and September 2001 (HE#19 & HE#47). This series of snapshots show that compared to the 1998-99 base, electricity prices were basically unchanged though March 2001, increased sometime before August 2001, and remained at the higher level in September 2001. Examination of electricity prices paid by California consumers confirms this pattern; showing that the PUC mandated increase in prices took effect June 2001 (HE#6a). Examination of utility prices paid by California dairy farmers also confirms this pattern (Table 2 and HE#15). California prices for electricity are at record levels and will remain so, barring further action by the PUC.

At times in January 2001, there were rolling blackouts and voluntary interruptions because the supply of electricity was simply not enough to meet demand. However, from February 2001 through November 2001, there have been no blackouts. The Department documented the extent of the blackouts for processing plants (HE#7g from the May 31, 2001 hearing).

Because natural gas prices are less regulated, these prices have been more volatile and vary more among end users. Compared to the 1998-99 base, the series of snapshots from the cost summaries show that natural gas prices were already increasing by October 2000. Natural gas prices reached a peak apparently around March 2001. Prices declined in August and September 2001, but were still above October 2000 levels. Natural gas costs at Class 4a and 4b processing plants remain high (HE#19 & HE#47). Similarly, natural gas rates at Class 2 and 3 processing plants also remain high (HE#46). This pattern of high natural gas costs at dairy processing plants is also support by the material supplied by the Dairy Institute in its post hearing brief.

Introduction of Proposals

To offset the increase in natural gas and electricity prices, processing cooperatives have requested decreases in the Class 4a and 4b prices by increasing the Class 4a and 4b manufacturing cost allowances:

- CDI proposed increases in the Class 4a manufacturing cost allowances. The increases were 0.52¢ and 2.62¢ per pound, respectively for butter and nonfat dry milk.
  - CDI also supported cost-based increases in Cheddar cheese and whey butter manufacturing cost allowances; they specified that the Department should use the same criteria in changing allowances for both Class 4a and Class 4b.

- LOL proposed increases in the Class 4b manufacturing cost allowances. The increases were 0.52¢ and 1.39¢ per pound, respectively for whey butter and Cheddar cheese.
  - LOL also supported CDI's proposed increases in the Class 4a manufacturing cost allowances.

At the hearing, Western United Dairymen (WUD) and Milk Producers Council (MPC) proposed alternatives to the petitioners' proposals:

- WUD proposed increases in the Class 4a and 4b manufacturing cost allowances. The increases were 0.43¢, 2.12¢ and 0.55¢ per pound, respectively for butter/whey butter, nonfat dry milk and Cheddar cheese.

- MPC proposed the addition of a skim whey powder component to the Class 4b pricing formula.
  - MPC opposed any increases to the manufacturing cost allowances for butter/whey butter, nonfat dry milk, and Cheddar cheese.

Impact of Proposals

As presented, both the CDI and WUD proposals would have comparable negative impacts on both classified and pool prices. The MPC proposal would have a small positive impact on prices. As presented, the LOL proposal would fall in between. However, both CDI and LOL called for cost justified decreases in, respectively, the Class 4b and 4a prices. Combing their two proposals would have the largest net impact on producer prices: a decline of $0.14 per hundredweight. Generally, the changes from all the proposals would fall more heavily on the SNF component prices. (See Table 4.)

Table 4. **PRICE CHANGES RESULTING FROM HEARING PROPOSALS**
All Figures are Dollars per Hundredweight

	Class 4a	Class 4b	Pool
MPC	+$0.00	+$0.06	+$0.03
LOL		-$0.14	-$0.05
WUD	-$0.20	-$0.06	-$0.09
CDI	-$0.25		-$0.09

Arguments Mitigating Against any Increase in the Manufacturing Cost Allowances

Opponents of increases in the manufacturing cost allowances argued that there were factors mitigating against any increase. Most of these arguments were made at prior hearings. These arguments were found to be unconvincing by the Department in the determinations from those hearings (HE#45). Nothing in the current testimony and evidence was sufficient to modify this determination.

- An argument was made that the yield factors used in the Class 4a and 4b pricing equations were too low. This argument was not accepted at the May 31, 2001 hearing (HE#45c). (While the Secretary did not accept the panel recommendation from the May 31 hearing as to increases in the allowances, this was based on uncertainty in future energy prices, not on inadequacies of the yield factors.)

These same arguments about yield factors had also not been accepted at prior Class 4a and Class 4b hearings held in December 1996 and September 1997 (HE#45). The Department did issue a study on the theoretical yields of powder based on information available to the Department. However, this powder yield study has never undergone a vigorous peer review. A number of questions arose as to the validity and accuracy of the data used when this study was first introduced at a Departmental workshop. Until these issues are more adequately addressed, the questions concerning the accuracy of the yield numbers cited in the powder yield study will remain**.**

- An argument was made that the Class 4b pricing equations undervalued milk used to make cheese because it did not include a factor for skim whey powder. The Department does consider that the value for whey butter disposal is reflected in the pricing formula. Skim whey powder is only made by one of the nine Cheddar cheese plants in the plant studies, and that plant makes it in very small quantities (HE#45). Whey cream and whey butter are common products of California Cheddar cheese plants, and the Class 4b pricing formula (unlike the federal Class III pricing formula) does include a factor for whey butter.

  Finally, these same arguments regarding a factor for skim whey powder were not accepted at the March 28, 2001 hearing (HE#45, panel report for March 28, 2001 hearing):

  > *"The petitioners cited subsection (a) and interpreted this section to mean that because whey has a market value and is produced from milk, its value must be included in the Class 4b pricing formula. The Department takes a broader view of Section 62076 and notes that the Director is instructed to take into consideration any relevant economic factors, one of which is the market value of various products produced from milk. The Department considered the relative market value of whey, but considered other relevant economic factors as well — the current level of milk production, the number of cows milked and prices received by producers. None of these three primary economic factors indicates that a price increase is warranted. In combination, these three factors outweigh any consideration given to the relative market value of products yielded from milk.*
  >
  > *In its proposed form, the amendment to the Class 4b pricing formula ignores the very large and real plant loss of solids in the whey stream. Department data show that plant whey solids losses are at least 20 percent in the five plants not processing whey into animal feed with three plants over 33 percent. The lack of recognition of these plant losses indicates that the proposal to include a whey factor in the Class 4b pricing formula is incomplete in its current form.*
  >
  > *Despite the advances made by some of the larger or more progressive plants in producing and marketing specialized whey products, whey processing remains a cost–minimizing waste disposal effort for most plants and not a consistent profit–making venture. For many plants,*

particularly the smaller or mid–sized plants, whey processing is a means for handling an unwanted byproduct. Not all plants have the flexibility in their resources to devote to manufacturing marketable whey products, nor do they have the resources to market such products. It is not the Department's position that all cheese plants in California should have the capability to finance, construct and operate profitable whey processing facilities. Testimony given at the hearing indicate that there are no guaranteed markets or profits with whey products, even for the most advanced cheese processing plants."

- An argument was made that the formula establishing the Class 4a SNF price undervalues prices for buttermilk powder (BMP). At a hearing held in December 1995 (HE#45), opponents of a decrease in allowances argued (unsuccessfully) that the formula establishing the Class 4a SNF price overvalued prices for BMP. In 1995, prices for BMP were below their historic average relationship to prices for NFDM. In 2001, prices for BMP are above their historic average relationship to prices for NFDM. The Class 4a SNF pricing formula assumes a long-term average relationship between prices for BMP and NFDM. Short-term differences in current prices cannot be used to mitigate against either increases or decreases in the allowances.

- An argument was made that the Class 4a and 4b prices were too low compared to, respectively, the comparable federal order Class IV and III prices. Such a price comparison is one of many relevant economic factors to be considered at a hearing. However, California Class 4a and 4b pricing formulas use market prices, yields and manufacturing cost allowances based on conditions in California. Federal order Class III and IV pricing formulas are established based on different criteria and conditions. Additionally, federal order plants can escape minimum pricing requirements by depooling. In California, depooling does not eliminate the minimum price requirement.

- The formula establishing the Class 4a fat price uses the Chicago Mercantile Exchange (CME) price for Grade AA butter less 4.5¢ per pound. The 4.5¢ deduction assumes that the price of Grade AA butter sold f.o.b. California manufacturing plants averages 4.5¢ less than the CME price. Opponents of increases in the manufacturing cost allowances entered an exhibit of "range of weekly western butter prices". The exhibit was based on weekly reports from the Dairy Market News (DMN) covering the period from October 2000 to November 2001. Opponents argued that this exhibit was an indication that the current 4.5¢ adjustment was too large. The Department did collect sales information for California butter for the period 1994-1997 (HE#45). At that time, the 4.5¢ relationship appeared to hold. Without Western butter reports from this same 1994-97 period, it is not possible to judge whether the opponents exhibit is an indication of a change in the 4.5¢ relationship. In any case before the 4.5¢ adjuster is changed, the Department would again need to collect sales information for California butter for a more recent period. At the time of this hearing, the sales information was not available.

Limitation of Allowance Changes to Energy Cost Changes

The focus of this hearing was not on a general adjustment to the Class 4a and 4b pricing formulas based on changes since 1994-96. As stated in the hearing Notice (HE#1), "*Because the petitions propose changes to pricing levels, consideration will primarily focus upon pricing levels. Alternative proposals should focus on changes to . . . the Class 2 and 3 differentials . . . and the Class 4a and 4b manufacturing cost allowances.*" Thus, the Department developed a series of summaries using 1998-99 as a base period. The base 1998-99 summary was not adjusted for any cost component. Four additional summaries were developed that adjusted the 1998-99 base by energy costs for the one-month periods October 2000 and March, August & September 2001. Thus, Table 3 compares energy costs for the 1998–1999 base period to energy costs for these four months in 2000 and 2001 (HE#19 & HE#47). Based on these studies, California manufacturing plants have seen significant changes in both electricity and natural gas costs.

Issues dealing with yields, cheese/butter market adjusters, buttermilk powder, or dry skim whey factors were dealt with at prior hearings in 1996, 1997 and 2001 (HE#45). Nothing introduced into this hearing record supports the need to readdress these issues at this time. As was the case for the hearing held on May 31, 2001 (HE#45c), the purpose of this hearing was to determine whether or not the energy cost increases documented in Table 3 justified increases in one or more of the manufacturing cost allowances.

Equality between Class 4a and Class 4b Processors

At the hearing, there was testimony about equal treatment of both Class 4a and Class 4b processors. In particular, some Class 4b processors stated that the manufacturing cost allowances cover a greater share of the volume of the Class 4a plants.

Part of the volume-covered issue arises because the butter/NFDM and Cheddar cheese industries are composed of relatively small and diverse numbers of plants. Although the Department studies cover ninety-three to one hundred percent of the product processed, the costs are in discrete units and are not continuous. One small efficient plant or one large inefficient plant can greatly skew the volume covered without being an indication of Departmental policy. Even the number of plants in the surveys can be deceptive. Nominally, there are eight butter plants, eleven NFDM plants, and nine cheese plants. However, given multiple plant ownership, there are only five butter firms, seven NFDM firms, and six cheese firms.

A second part of the volume-covered issue is one of perception. Butter/NFDM plants tend to be rather uniform among themselves but differ significantly from cheese plants, which are not uniform among themselves. Butter/NFDM plants generally work with 3.5% fat and 8.7% SNF milk. Cheese plants have vat tests ranging from 3.8% - 8.7% milk, to 4.6% - 9.3% milk, and yields ranging from 9.9 to 12.7 pounds of cheese per hundred pounds of milk. For the September 1997 hearing (HE#45), the Department prepared extensive reworks of the Cheese exhibits to adjust for differing tests, yields, and moisture levels in barrel plants. The panel did a similar adjustment for the current cheese plant studies.

Typically, returns to scale results in the largest plants (measured in volume processed) having the highest efficiency (lowest unit cost). The panel tested this assumption by reviewing the size and cost relationship of the 19 California butter, NFDM, and Cheddar cheese processing plants that were part of the cost studies. Butter plants generally fit this expected pattern of efficiency increasing with size. NFDM plants do not fit the expected pattern as well, but they did follow the same general trend. Cheddar cheese plants do not fit the expected pattern at all. Thus, there is no way to establish reasonable manufacturing cost allowances that cover the same volume of product for each of the three plant types. Likewise, it is not possible to establish reasonable manufacturing cost allowances that bear a common relationship to the weighted average costs of the three plant types.

Analysis

Given the relatively small proportion that energy costs play in producing milk, the cost of production monthly surveys only collect the dollar expense of the energy input. Since energy expenses are a more significant portion of manufacturing costs, the manufacturing cost surveys collect the actual amounts of kilowatts of electricity and therms of natural gas used to manufacture cheese, butter, and NFDM. When energy rates change substantially, the manufacturing cost studies can be adjusted to reflect the new rates quite accurately.

Some of the producer witnesses testified that no changes in the Class 4a and 4b pricing formulas should be made. They argued the Department should wait until more recent cost studies were completed for all manufacturing plants. This seems inconsistent with the position expressed at the January 12 hearing. From 1991 to 1996 under the now sunseted Section 62062.2, the Department did increase minimum prices well before cost of production studies reflected the impact of natural disasters such as droughts or floods.

Changes in manufacturing costs have always been a basis for adjustments in the manufacturing cost allowances, but not the only basis. Consideration is also given to other relevant economic factors.

As stated previously, the primary focus of this hearing was on energy costs. Thus, any increase in the manufacturing cost allowances will be based on increases in energy related costs. The issue before the panel is an appropriate measure of those costs. The panel stands today looking back at prior energy costs (Table 3) to try to establish allowances to deal with future energy costs. Since the PUC establishes electricity rates, the uncertainty lies more with natural gas costs than with electricity costs.

Farm and Plant Energy Impacts. Even before the recent increases, energy was a smaller share of total farm production costs than total plant processing. As of August 2001, energy's share of total costs had gone up for both producers and processors. However, the increases have been smaller for producers than for processors. (Table 5)

Table 5. **ENERGY'S SHARE OF TOTAL COSTS**
BOTH ON-FARM AND AT PROCESSING PLANTS
Bases Period is 2000 for Farms and 1998-99 for Plants

	Base Period	Increase	August 2001
On-Farm	1.6%	0.3%	1.9%
Butter Plants	5%	5%	10%
NFDM Plants	15%	14%	29%
Cheese Plants	7%	2%	9%

That the more significant cost increases are for processors are a matter of record (Tables 3 and 5). Additionally, it must be remembered that the Department sets minimum prices. Processors are allowed to pay more than the minimum price, but never less. If producer prices are too low relative to their costs, milk production will decline and prices will increase until price and cost are back in alignment. If the manufacturing cost allowances are too low (minimum prices are too high), no adjustment in market conditions can address the problem. The allowances can only be changed through the hearing process. As stated above, this is more of an issue in California than in federal orders. In federal orders, plants can escape minimum pricing requirements by depooling. In California, depooling does not eliminate the minimum price requirement.

At the January 12, 2001 hearing, producer organizations testified that the Class 1, 2, and 3 prices should be increased to offset anticipated increases in energy costs at the farm. For the first eight months of 2001 compared to latter part of 2000, production cost data demonstrates that energy expenses did not increase significantly. In contrast to the January 12 hearing, the November 29, 2001 hearing contained Departmental exhibits that demonstrate increased energy costs for processing butter, NFDM and cheese based on data for October 2000, March 2001, August 2001, and September 2001.

Manufacturing Cost Studies. There were questions about how representative the studies were. The plant studies had energy costs updated to the average for October 2000 and March, August & September 2001. However, all other costs are averages for various twelve–month periods between January 1998 and December 2000. In addition, the studies themselves reflect the plant operations for these same twelve–month periods: volume of milk taken in, mix of products processed, plant equipment, etc. Nevertheless, these are the most current available and have always been the basis of panel recommendations to both raise and lower the allowances.

In determining how to make an appropriate adjustment in the Class 4b price to reflect higher energy costs, the panel carefully examined the methodology that petitioner Land O'Lakes used. Basically the petitioner incorporated the energy rates experienced in the its main facility and used this rate as a basis for a make allowance adjustment for the California cheese industry. However, the hearing record documents the energy rates vary based on the location of the plant, whether or not the service was interruptible, and the financial arrangements used to secure its natural gas supplies. The broader energy costs from the Department's nine plant summaries (HE#19 & HE#47) are more representative than the analysis using the energy rates at a single plant (HE#53).

Summary. The panel reaffirms the previous findings of the Department that the Class 4a and 4b formulas adequately reflect butter/NFDM processing and cheese processing. Plant manufacturing costs have increased significantly in recent months because of increases in electricity and natural gas prices (see Table 3). Under the assumption that electricity costs will remain high for the near future and natural gas costs are uncertain, the panel was not aware of any persuasive economic factors that mitigate against the need to increase the manufacturing cost allowances. The manufacturing cost allowances should reflect the changes in processing costs related to energy price changes as shown in Table 3.

At the January 12, 2001 hearing, producers wanted the Department to adjust prices based on anticipated increases in on-farm cost of production. At the current hearing, producers want the Department not to adjust prices based on anticipated decreases in manufacturing costs. As in the case of the previous hearings, it is not appropriate to adjust the Class 4a and 4b pricing formulas based on "anticipated" or "projected" costs, which may or may not be realized. Limiting any adjustment in the Class 4a and 4b formulas only to the actual costs incurred will maintain policy consistency with prior hearings.

An increase in the manufacturing cost allowances will ensure adequate plant capacity to handle the increases in on-farm milk production in California. If plant capacity does not match milk production, producers will be forced to ship milk out-of-state as they did in the late 1970's. The cost of shipping milk out-of-state is more burdensome than an increase in the manufacturing cost allowances. Increasing out-of-state shipments would be something that does not contribute to "*orderly marketing*" or elimination of "*economic waste*" (Section 61802(e)), nor would it bring about "*a reasonable amount of stability . . . in the production of market milk*" (Section 61805(d)). If the Department did not ensure a home for California's growing milk production, it would be promoting a policy of establishing "*limitations upon the production of market milk*", contrary to the provisions of Section 61998. Finally, by not supplying a reasonable manufacturing cost allowance, the Department would not be meeting the requirements of Section 62062(b) "*That prices established pursuant to this section shall insure an adequate and continuous supply, in relation to demand, of pure, fresh, wholesome market milk for all purposes, <u>including manufacturing purposes</u>, at prices to consumers which when considered with relevant economic criteria, are fair and reasonable*."

Panel Recommendation

Except for NFDM, the panel recommends increasing the manufacturing cost allowances in the Class 4a and 4b pricing formulas by the amount of the increase in energy costs averaged for August and September 2001 as compared to the 1998-99 base period (Table 3). The panel believes a relatively smaller increase in the NFDM allowance is justified:

- An allowance based on August-September costs would cover over 90 percent of the NFDM based on total plant costs;
- Testimony spoke to covering similar percentages of butter, NFDM, and cheese processing volumes; and
- The increasing amounts of NFDM being sold to the federal government,

The panel believes it is appropriate to increase NFDM make allowance to 16.1 cents per pound, the smallest increase suggested by the witnesses.

Thus, the Panel recommends a decrease of the Class 4a and 4b prices by increasing the manufacturing cost allowances in the Class 4a and 4b pricing formulas effective January 1, 2002:

Grade AA Butter:	increase 0.5¢ from 9.7¢ to 10.2¢	covers 57% of the volume
Nonfat Dry Milk:	increase 2.1¢ from 14.0¢ to 16.1¢	covers 76% of the volume
Cheddar Cheese:	increase 0.7¢ from 16.9¢ to 17.6¢	covers 65% of the volume
Whey Butter:	increase 0.5¢ from 9.7¢ to 10.2¢	

The increases in the manufacturing cost allowances would decrease the Class 4a prices by $0.20 per hundredweight and the Class 4b price by $0.07 per hundredweight.

CLASS 2 AND 3 PRICING FORMULAS

Proposals

There were no formal proposals entered into the hearing record to make specific changes to the Class 2 or 3 pricing formulas. However, by proposing adjustments to the Class 4a pricing formula, both CDI's and WUD's proposals would have an impact on Class 2 and 3 prices. This is because the Class 2 and 3 pricing formulas are a fixed differential based off the Class 4a component prices.

The witness representing Milk Producers Council (MPC) testified that, if the manufacturing cost allowances are increased in the Class 4a and 4b pricing formulas, those changes should not be reflected in the Class 2 or 3 formulas. However, MPC did not offer specific language to amend the Class 2 or 3 pricing formulas in the Stabilization and Marketing Plans, nor did it make a specific proposal public prior to the hearing. MPC waited to introduce its proposal through testimony at the hearing. This did not provide an opportunity for other affected parties to analyze its proposal. Affected parties could not offer testimony and evidence either in support of, or in opposition to, the proposal. Therefore, the evidence in the record was inadequate to adopt MPC's proposal.

Background

The Stabilization and Marketing Plans provide that Class 2 and 3 component prices for milk are calculated as fixed differentials above the Class 4a component prices. Without any adjustment to the Class 2 and 3 pricing formulas, changes in the Class 4a pricing formula will be reflected automatically in the Class 2 and 3 prices.

Prior Hearing

At the May 31 hearing on energy costs, the petitioner for that hearing proposed that the Class 2 and 3 formulas be amended such that any adjustment made to the Class 4a pricing formulas would not affect prices for Class 2 and 3 milk.

In its panel report and findings, the Department addressed this proposal stating that Class 2 and 3 processors were also adversely affected by increased costs for energy during the period for

which energy cost data was updated. Therefore, the Department determined that the Class 2 and 3 pricing formulas should not be "decoupled" from the Class 4a formula.

Impact of Proposals

In addition to the proposal in the California Dairies, Inc., petition, Western United Dairymen (WUD) presented a counter-proposal during its testimony at the hearing.

The counter proposal presented by WUD suffers the same problem as the MPC proposal; it was not publicized prior to the hearing. Therefore, other affected parties were not able to analyze the proposal and offer testimony and evidence in support of, or in opposition to, the proposal.

Proposals submitted by both California Dairies, Inc. and Western United Dairymen would impact Class 4a prices and, therefore, Class 2 and 3 prices (Table 6).

Table 6. **HEARING PROPOSALS**
Impact on Class 2 and 3 Milk Prices

Class 2 and 3 Price Changes	*CDI Proposal - LOL Supporting*	*WUD Proposal*
Fat - $/lb.	-$0.0062	-$0.0052
SNF - $/lb.	-$0.0259	-$0.0210
$ per cwt.	-$0.25	-$0.20

Energy Cost Increases Incurred by Class 2 and 3 Processing Plants

The Department's Hearing Exhibit #46 shows the increase in costs for natural gas and electricity as reported by plants processing Class 2 and 3 dairy products. The data was collected from plants representing a majority of the volume of Class 2 and 3 products processed during August 2001.

The Department does not perform manufacturing cost studies on plants processing Class 2 or 3 products and therefore, cannot determine what percentage of total manufacturing costs are represented by the unit cost indicated in the Exhibit represent for natural gas and electricity. However, the Exhibit does indicate that these plants experienced an increase in energy cost averaging 77 percent for electricity and 92 percent for natural gas.

Dairy Institute submitted the results of a survey of its Class 2 and 3 processor membership in its post hearing brief. The survey also indicated that energy cost increased substantially in the last 24 months. Processors responding to the Institute's survey also indicated that other cost components have increased due to energy costs, further exacerbating the increase in processing cost borne by California processors.

Evidence in the record clearly indicates that Class 2 and 3 processors incurred substantial increases in their cost of doing business because of increased energy costs during 2000/01.

As stated in the determinations for the May 31 hearing on energy costs, California's share of the national market for many Class 2 and 3 dairy products continues to shrink. Figure 1 shows production of Class 2 products, yogurt and cottage cheese, compared to California's share of the national population. Prior to 1990, California's share of market exceeded California's share of population. California processors were supplying markets outside the state as well as inside the state. In the late 1990s and early 2000s, California became a deficit state regarding cottage cheese curd production. Once a major exporter of yogurt, California's current share of US yogurt production barely exceeds its share of US population.

Figure 3 shows the trends in California compared to other western states regarding production of cottage cheese since 1990. While market share for California has declined, production in other western states is increasing.

Figure 2 shows similar results for Class 3 products. While California's market share of the national ice cream market has barely matched the state's share of population, the markets for other Class 3 products have dropped significantly during the last decade.

Given California is the nation's number one milk producing state, that it is the largest market for dairy products in the nation, and that there is more than ample supply of milk to keep plants running, there must be an economic basis for the drop in Class 2 and 3 market share. If Class 2 and 3 raw-product prices are not adjusted to compensate for increased energy costs, the state can expect to continue its downward trend in Class 2 and 3 market share.

Panel Recommendation

Only one witness at the hearing testified that changes in the Class 4a pricing formulas should not be reflected in Class 2 and 3 prices. No evidence was offered to support this position. The record is clear that energy costs have increased substantially for Class 2 and 3 plants as they have for Class 4a and 4b plants. The increase in plant costs combined with the continuing erosion of market share for California Class 2 and 3 production warrant the same price relief to Class 2 and 3 processors as given to Class 4a processors.

EFFECTS OF PANEL RECOMMENDATIONS

Had it been in effect for the last ten years, the Panel Recommendation would have reduced the announced Class 2, 3 and 4a prices $0.20 per hundredweight and the announced Class 4b prices $0.07 per hundredweight. The announced pool prices would have been reduced an average of -$0.10 per hundredweight, with most of the decrease on the SNF component. (Table 7)

Table 7. **PRICE CHANGES RESULTING FROM HEARING PROPOSALS AND PANEL RECOMMENDATION**
All Figures are Dollars per Hundredweight

	Class 4a	Class 4b	Pool
MPC	+$0.00	+$0.06	+$0.03
LOL		-$0.14	-$0.05
CDI	-$0.25		-$0.09
WUD	-$0.20	-$0.06	-$0.09
Panel Recommendation	-$0.20	-$0.07	-$0.10

The panel recommendations are less than those requested by CDI and LOL. They are not that different from those of WUD.

Commercial butter, NFDM and Cheddar cheese prices determine both the retail market prices and the Class 4a and 4b prices. Thus, changes in the manufacturing cost allowances have no effect on consumer prices for butter, NFDM and cheese; they only change the relative distribution of monies between producers and processors. However, the decreases in the Class 2 and 3 prices have the potential of being passed on to consumers if processors and retailers choose to do so. If consumers receive the full benefit of the Class price decreases, then prices for lowfat yogurt (1% fat) will decrease 0.5¢ per quart, while prices for generic ice cream (10% fat) will decrease 0.6¢ per ½–gallon.

Not all producers will experience the full impact of the pool price reduction. Producer members of one of the four processing cooperatives will have some of the decrease offset. The amount of the offset will depend on the amount of their members' milk each cooperative processes in its own plants. Additionally, some producers ship their milk to cheese plants with premiums based on a yield equation. Such producers may have an offset as well.

ATTACHMENT A
Summary of Panel Recommendation with Arguments and Alternatives

MANUFACTURING COST ALLOWANCES

Panel Recommendation:
Increase the manufacturing cost allowances in the Class 4a and 4b pricing formulas effective January 1, 2002:

Grade AA Butter:	increase 0.5¢ from	9.7¢ to 10.2¢
Nonfat Dry Milk:	increase 2.1¢ from	14.0¢ to 16.1¢
Cheddar Cheese:	increase 0.7¢ from	16.9¢ to 17.6¢
Whey Butter:	increase 0.5¢ from	9.7¢ to 10.2¢

Arguments in Favor of Panel Recommendation:
- The increases are cost justified
- Given the assumption that energy cost increases continue for an extended period of time, the panel is not aware of any economic factors that support a smaller increase

Who would likely support this recommendation based on testimony and evidence on the hearing record:
- Humboldt
- California Dairies, Inc.
- Land O' Lakes, Inc.
- Crystal Cream & Butter Company
- Leprino Foods
- Western United Dairymen
- Alliance
- Institute
- Farmdale Creamery

Arguments Opposed to Panel Recommendation:
- The recommended increases ignore the peak costs of electricity and natural gas experienced by the plants (HE#19 & HE#47). To recover lost revenue, the allowances should reflect these peaks costs for natural gas in March 2001 and electricity in August 2001:

Grade AA Butter	increase 0.7¢ from	9.7¢ to 10.4¢
Nonfat Dry Milk	increase 3.5¢ from	14.0¢ to 17.5¢
Cheddar Cheese	increase 1.1¢ from	16.9¢ to 18.0¢
Whey Butter	increase 0.7¢ from	9.7¢ to 10.4¢

- The recommended increases ignore the recent decline in natural gas costs to pre-2000 levels. The allowances should reflect only the increase in electricity costs averaged for August and September 2001:

Grade AA Butter	increase 0.2¢ from 9.7¢ to 9.9¢
Nonfat Dry Milk	increase 0.7¢ from 14.0¢ to 14.7¢
Cheddar Cheese	increase 0.3¢ from 16.9¢ to 17.2¢
Whey Butter	increase 0.2¢ from 9.7¢ to 9.9¢

- Natural gas prices are coming down and the period of instability may be passing. Therefore, no increases in the allowances are needed.

Who would likely oppose this recommendation based on testimony and evidence on the hearing record:

- Milk Producers Council
- Security Milk Producers
- California Farmers Union

CLASS 2 AND 3 PRICING FORMULAS

Panel Recommendation:
The Panel recommends that no changes be made to the Class 2 and 3 pricing formulas.

Arguments in Favor of Panel Recommendation:

- No one proposed any specific changes to the Class 2 and 3 pricing formulas

- Processors of Class 2 and 3 products have experienced significant increases in energy costs while continuing to lose market share to neighboring states.

- By maintaining the current differentials between Class 2 and 3 prices and Class 4a prices, the relative and reasonable contribution to total producer revenues by each of these classes is maintained.

- The market for Class 2 and 3 products is becoming more regional, if not national, thereby increasing the level of competition and reducing local processors' ability to pass along dissimilar cost increases to consumers.

- It is not good public policy to encourage increasing growth of Class 4 utilization at the expense of higher value usages.

- Producer revenues have increased dramatically so far this year due to higher commodity market prices. Even with increases in manufacturing cost allowances and a direct pass through to Class 2 and 3 prices, producers will receive more revenue this year than they did last year.

Who would likely support this recommendation based on testimony and evidence on the hearing record:

- Humboldt
- Dairy Institute

- Crystal Cream & Butter Company
- CDI
- WUD
- The Panel assumes that most proprietary processors would support the recommendation because it may lower raw product cost to help offset increased energy cost.

Arguments in Opposition to Panel Recommendation:

- None because no one made specific proposals that would prevent Class 2 and 3 prices from falling with Class 4a prices.

Who would likely oppose this recommendation based upon testimony and evidence on the hearing record:

- Formally, no one because there were no specific proposals for changes to the Class 2 and 3 pricing formulas. However, those who opposed the Class 4a and 4b price decrease will also be unhappy with Class 2 and 3 prices falling:
  - Milk Producers Council – specifically opposed any decrease
  - Security Milk Producers
  - California Farmers Union

ATTACHMENT B
Summary of Testimony and Post Hearing Briefs